

Amendments to the Claims

This listing of claims supersedes all prior listing of claims.

1 - 23. (canceled).

24. (currently amended) An access point that provides voice and data communications for use in a wireless local area network having a plurality of mobile units, said access point being configured to:

- receive signals carrying communications packets directed to particular mobile units;
- prioritize said communications packets for transmission based on:

- whether a current packet is a network management packet, a voice communication packet or other communication packet, wherein the network management packet is prioritized higher than the voice communication packet and the voice communication packet is prioritized higher than the other communication packet;

- the total number of packets to be transmitted to each mobile unit; and

- the order in which the packets were received by the access point, wherein earlier received packets have higher priority than later received packets;
- ~~wherein the network management packet is prioritized higher than the voice communication packet and the voice communication packet is prioritized higher than the other communication packet.~~

25. (currently amended) A method for providing voice and data communications for use in a wireless local area network having an access point and a plurality of mobile units, comprising:

receiving signals at the access point which carry communications packets directed to particular mobile units;

prioritizing said communications packets for transmission based on:

whether a current packet is a network management packet, a voice communication packet or other communication packet, wherein the network management packet is prioritized higher than the voice communication packet and the voice communication packet is prioritized higher than the other communication packet;

the total number of packets ~~to be~~ transmitted to each mobile unit; and

the order in which the packets were received by the access point, wherein earlier received packets have higher priority than later received packets;
~~wherein the network management packet is prioritized higher than the voice communication packet and the voice communication packet is prioritized higher than the other communication packet.~~

26. (currently amended) A transmitter for use in a carrier sense multiple access communications system, said transmitter being configured to:

receive signals carrying communications packets directed to particular receiver units;

prioritize said communications packets for transmission based on:

whether a current packet is a network management packet, a voice communication packet or other communication packet, wherein the network management packet is prioritized higher than the voice communication packet and the voice communication packet is prioritized higher than the other communication packet;

the total number of packets transmitted to each receiver unit; and

the order in which the packets were received by the transmitter, wherein earlier received packets have higher priority than later received packets ~~the network management packet is prioritized higher than the voice communication packet and the voice communication packet is prioritized higher than the other communication packet;~~

use a contention window of a first duration for transmitting packets that are for voice communications; and

use another contention window of a second duration that is different from said first duration for transmitting other packets.

27. (original) The transmitter of claim 26, wherein the first duration is shorter than the second duration.

28. (original) The transmitter of claim 26, wherein said transmitter is an access point of said communications system.

29. (original) The transmitter of claim 26, wherein said transmitter is a remote terminal in said communications system.

30-31. (canceled).

32. (currently amended) A method for transmitting packets by an access point for use in a carrier sense multiple access communications systems, comprising:

receiving signals which carry communications packets directed to particular receiver units;

prioritizing said communications packets for transmission based on:

whether a current packet is a network management packet, a voice communication packet or other communication packet, wherein the network management packet is prioritized higher than the voice communication packet and the voice communication packet is prioritized higher than the other communication packet;

the total number of packets to be transmitted to each ~~mobile receiver~~ unit; and

the order in which the packets were received by the access point, wherein earlier received packets have higher priority than later received packets ~~the network management packet is prioritized higher than the voice communication packet and the voice communication packet is prioritized higher than the other communication packet;~~

using a contention window of a first duration for transmitting packets that are for voice communications; and

using another contention window of a second duration that is different from said first duration for transmitting other packets.

33. (original) The method of claim 32, wherein the first duration is shorter than the second duration.

34. (previously presented) The method of claim 32, wherein using said contention window of a first duration and using said another contention window of a second duration are performed at an access point in said communications system.

35. (original) The method of claim 32, wherein using a contention window of a first duration and using a contention window of a second duration are performed at a mobile unit in communications system.

36-40. (canceled).

41. (new) The method of claim 32, further comprising transmitting packets in rounds, wherein in each transmission round an equal number of packets is transmitted to each receiver unit.